# . LINE FOLLOWER ROBOT

## ROBOT

1) Team have to build an autonomous robot which can follow the black line on the white track.
2) One minute will be given before the start of the competition for calibration.

## GAME ARENA

1) The arena consists of a white track of 15cm wide and length 5m with a black line of width 3cm in the middle of the white track.
2) The competition will take place in the presence of daylight, hence participants are requested to use high quality photo-diodes or LDR or any other equipment used for sensing black line..

## GAME PLAY

1)  The bot will start from the starting line as shown in the figure below.
2)  The bot has to travel through the path following the black line drawn in the form of number eight.
3)  At one time only one bot can be on the path.
4)  The bot has to complete the full path.
5)  The bot has to glow one red led on reaching the finish line.

## ROBOT SPECIFICATIONS

1) The bot must be fully autonomous.
2) The bot must fit within a box of dimensions 20cm x 20cm x 20cm.
3) Robot must have an on-board supply.
4) When using the on-board power supply, the voltage at any point on an individual must be lower than or equal to 24 volts at any point of time during the game.
5) The bot should not consist of any material which could harm the track.
6) The starting procedure of the bot should be simple and should not involve giving any bot a manual force for the movement in particular direction.

## GAME RULES

1) The bot should start from the starting point autonomously without any manual force.
2) As the bot starts from the starting point, the timer will start.
3) Maximum of three touches are allowed during the game and on each touch to the robot 5 seconds extra will be added in the time.
4) The bot should travel only on the black strip.

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5) If the bot crosses the white track width then extra 5 seconds will be added as well as the bot has to start from the beginning.
6) Participants are not allowed to bring anything in the arena like laptop, tablets, mobile phones,etc, other than the robot.
7) The time measured by the organisers and will be final and will be used for scoring the teams.
8) In case of disputes/discrepancies, the decision of the organisers will be final.

## JUDGING
1) The time will start as the robot will begin from the starting line.
2) The team will be judged according to the time the robot takes to follow the black strip. The fastest will win.
3) In case of draw, the decision will be based on the technique used for making the robot.

## CONTROL
1) The bot must be completely autonomous.
2) The bot should not be provided any type of control from any other external source.

## POWER SUPPLY
1) Robot must have an on-board supply.
2) When using the on-board power supply, the voltage at any point on an individual must be lower than or equal to 24 volts at any point of time during the game.

## CERTIFICATE POLICY
1) Top 10 teams will be given the certificate of excellence.
2) All the participating teams with at least 10 points will be given the participation certificate.
3) Disqualified teams will not be provided any certificate.

## TEAM SPECIFICATIONS
A team may consists of minimum of 3 participants to maximum of 4 participants. Students         from different educational institutes can take part in the competition.

## ELIGIBILITY
All the students will valid identity card of their respective institutes are eligible to participate for this event.

## COORDINATORS
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